

Exhibit 12.1

Infringement Claim Chart for U.S. Pat. No. US9456086B1 v. Google ("Defendant")

Claim11	Evidence
<p>11. A method for matching a first entity with a second entity, comprising:</p>	<p>The Google Customer Service system with intelligent routing performs a method of matching a first entity with a second entity.</p> <p>For example, the Google Customer Service system matches an incoming call, which is the first entity, to a call center agent, which is the second entity.</p> <div data-bbox="787 545 1602 1336" data-label="Image"> <p>The screenshot shows the Google Cloud support interface. At the top, there is a link 'Talk to a Google Cloud sales specialist'. Below this, there are two main options: 'Chat online with us' and 'Request a call back'. The 'Chat online with us' option includes a description of the chat service and a 'Start chat' button. The 'Request a call back' option includes a description of the callback service and a 'Go to contact form' button. Below these options, there is a link 'Find a Google Cloud partner'. At the bottom, there is a section titled 'Get started on my own' with several links: 'Get support for my current Google Cloud product(s)', 'Increase my Google Cloud product quota', 'Learn about Google Cloud partners', and 'Get help with Google Workspace (Gmail, Docs, etc.)'.</p> </div> <p>Source: Contact Us Google Cloud</p>

Contact Center AI (CCAI) Platform

Delight your customers while lowering your costs with a turnkey omnichannel contact center native to the cloud.

A Contact Center as a Service (CCaaS) solution that offers security and privacy, along with unified data.

Reduce costs by improving operational efficiency

Platform simplification enables reduction in agent training time, turning agents from a cost center to revenue generators faster. One system of record to action insights, makes agent productivity higher.

AI-Driven Routing

AI powered operations for contact deflection, predictive routing, agent productivity and operational efficiency. Reduce handle time by providing deep interaction context and turn-by-turn guidance on the conversation flow based on customer intent.

	<div data-bbox="783 269 1623 506" style="border: 1px solid green; padding: 10px; margin-bottom: 10px;"> <p><u>Decrease interaction volume with predictive AI driven routing. Agents are enabled with insights and can respond faster with automated responses using Contact Center AI building blocks.</u></p> </div> <p>Source: Contact Center AI (CCAI) Platform Google Cloud</p> <div data-bbox="716 599 1692 901" style="border: 1px solid green; padding: 10px;"> <p><u>The addition of Contact Center AI Platform provides your partners the ability to integrate with Contact Center AI, so you can enjoy a more seamless experience operating your customer service center, with a complete view of the customer in a single workspace that includes real-time AI intelligence, native agent call controls, and real-time call transcription. For example, we are expanding our partnership with Salesforce to integrate Contact Center AI with Service Cloud Voice to deliver a unified Service Cloud agent console and Customer 360.</u></p> </div> <p>Source: Google Cloud Blog</p>
<p>storing a plurality of multivalued scalar data representing inferential targeting parameters for the first entity;</p>	<p>The Google Customer Service system with intelligent routing stores a plurality of multivalued scalar data representing inferential targeting parameters for the first entity.</p> <p>For example, the Google Customer Service system uses one or more of: interactive voice response (IVR), keypad menus, caller identification and customer relationship management (CRM) information to determine the nature of a call and thereby, the required characteristics of a call center agent to handle the call. These required agent characteristics include one or more of skills and respective skill levels, the agent's location, prior call history with calls of the same nature. These required characteristics are represented by CCAI platform which comprises a plurality of multivalued scalar data,</p>

which is stored and used by the customer service system, as inferential, or intelligent, targeting parameters for routing the call to an appropriate call center agent.

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Source: [Contact Center AI \(CCAI\) Platform | Google Cloud](#)

- Provide customers with self-service via web or mobile interfaces using Visual Interactive Voice Response (IVR).
- Predict customer needs and route calls appropriately with AI-driven routing, based on both historical CRM data and real-time interactions;

	<p>The addition of Contact Center AI Platform provides your partners the ability to <u>integrate with Contact Center AI, so you can enjoy a more seamless experience operating your customer service center, with a complete view of the customer in a single workspace that includes real-time AI intelligence, native agent call controls, and real-time call transcription.</u> For example, we are expanding our partnership with Salesforce to integrate Contact Center AI with Service Cloud Voice to deliver a unified Service Cloud agent console and Customer 360.</p> <p>Source: Google Cloud Blog</p>
storing a plurality of multivalued scalar data of each of the plurality of second entities, representing inferential targeting parameters for a plurality of second entities;	<p>The Google Customer Service system with intelligent routing stores a plurality of multivalued scalar data of each of the plurality of second entities, representing inferential targeting parameters for a plurality of second entities.</p> <p>For example, the Google Customer Service system stores the respective characteristics of multiple call center agents. These agent characteristics include one or more of skills and respective skill levels, the agent's location, and the agent's prior history with handling calls of a specific nature. The agent characteristics are represented by a CCAI platform comprising a plurality of multivalued scalar data and are used, by the Customer Service system, as inferential targeting parameters for routing the call to an appropriate call center agent.</p>

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	Source: Google Cloud Blog
performing using an automated processor, based on at least the stored plurality of multivalued scalar data, an economic optimization seeking to maximize a normalized economic surplus of a respective mutually exclusive match of the first entity with the second entity, in conjunction with an opportunity cost of the unavailability of the second entity as a result	<p>The Google Customer Service system with intelligent routing performs, using an automated processor and based on at least the stored plurality of multivalued scalar data, an economic optimization. The optimization seeks to maximize a normalized economic surplus of a respective mutually exclusive match of the first entity with the second entity, while at the same time considering an opportunity cost of the unavailability of the second entity as a result of the match.</p> <p>For example, based on the required agent characteristics for handling the call and the respective characteristics of multiple call center agents, the Google Customer Service system selects an appropriate agent for handling the call. This selection is made by making, for each of the multiple agents, a cost-benefit analysis of a prospective matching of the call with the particular agent. The cost-benefit for the prospective match is based, at least in part, on the required agent characteristics and the characteristics of the particular agent. This prospective match is mutually exclusive in the sense that the call is only assigned to the particular agent and the agent to this particular call for the duration of the call. Therefore, the cost-benefit analysis also accounts for the fact that the agent cannot handle other calls while handling this call. The agent associated with the prospective match that has the maximum benefit while considering the costs, which is the so-called normalized economic surplus, is selected by the Customer Service system to handle the call.</p>

of the match;
and

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	Source: Google Cloud Blog
Outputting a signal in dependence on the optimization.	<p>The Google Customer Service system with intelligent routing outputs a signal in dependence on the optimization.</p> <p>For example, the Google Customer Service system generates and outputs a signal for connecting the call with the matched agent, whereby the exact nature of the signal depends on the matched agent, so as to connect that agent to the call.</p>

Talk to a Google Cloud sales specialist

Chat online with us

Chat online with the Google Cloud sales team, available Monday, 9 AM ET, through Friday, 7 PM ET.

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